



# USB Driver Installation Manual

Model: DRV-003-01

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## Contents

Read this first	2
1 Outline	4
1.1 Summary	4
1.2 Operation Image	4
2 Operating Environment	4
2.1 Supported Operating Systems	4
2.2 Hardware	4
3 File Composition	5
4 Installation	5
5 Specification	9
5.1 Supported API	9
5.2 Control Signal Values	10
5.3 USB Port ⇔ COM Port Mapping	10
5.4 Reset COM Port Mapping (to change USB port)	11
5.5 Add Virtual COM Port (to connect additional display(s))	11
6 Revision History	12

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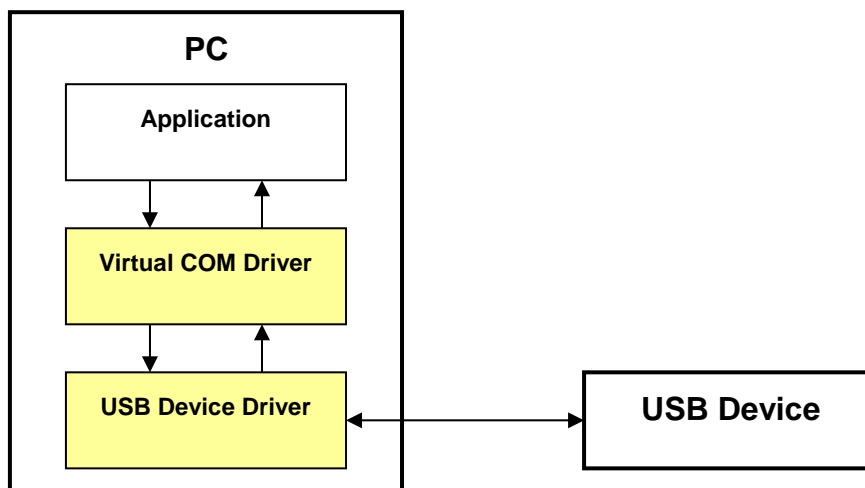
## 1 Outline

### 1.1 Summary

This USB driver represents the USB device as a virtual COM port. This enables most existing applications that use COM ports to be used without modification.

Supported VFD modules: GU512X32H-3901B, CU16029-TE200K, GU-TFT

### 1.2 Operation Image



## 2 Operating Environment

### 2.1 Supported Operating Systems

The following operating systems are supported:

- Windows 7/8 (32-bit/64-bit)

### 2.2 Hardware

PC with USB1.1 or USB2.0 interface.

### 3 File Composition

The driver package is distributed as a single installer file:

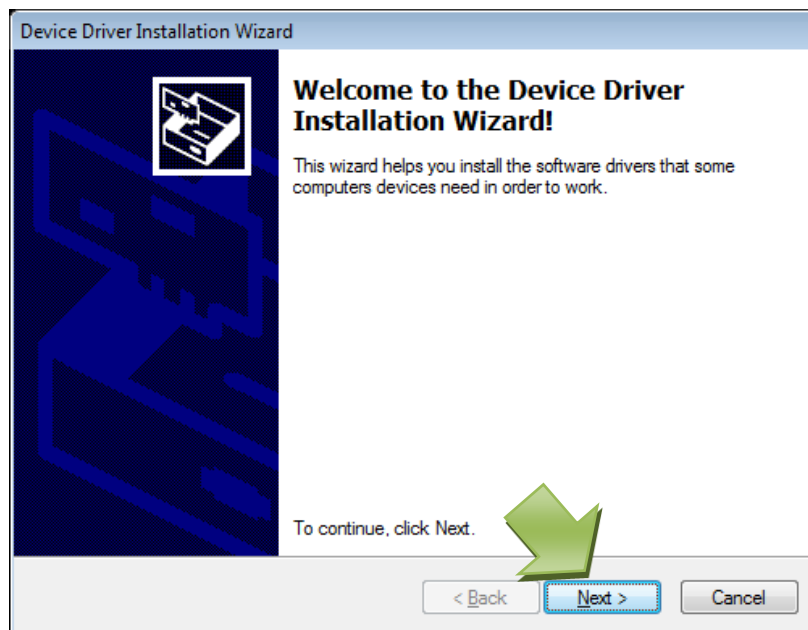
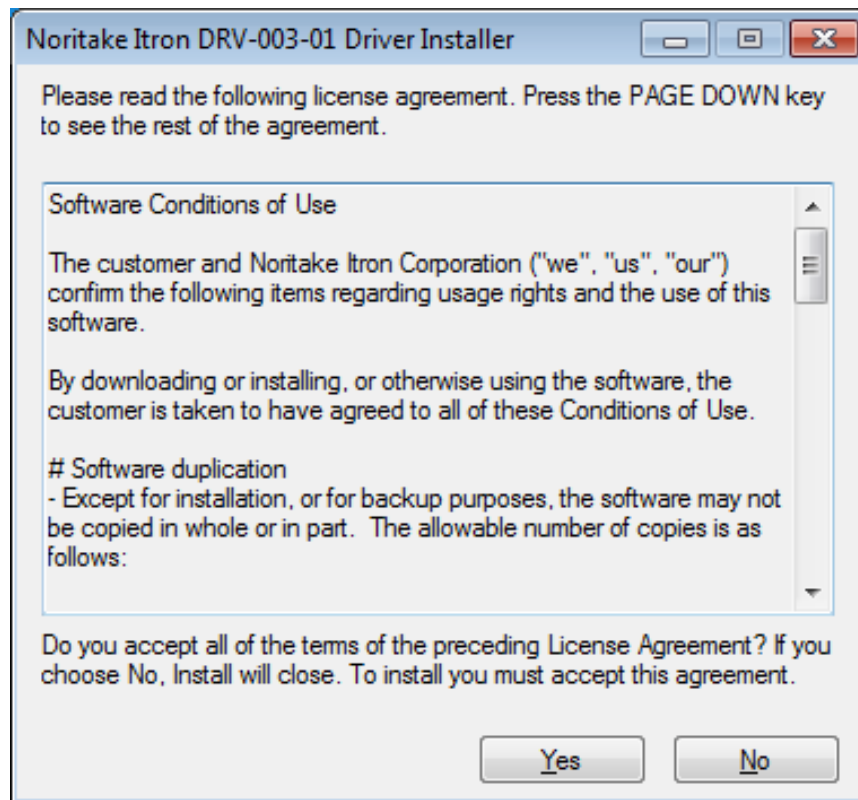
DRV-003-01\_Driver\_Installer.exe

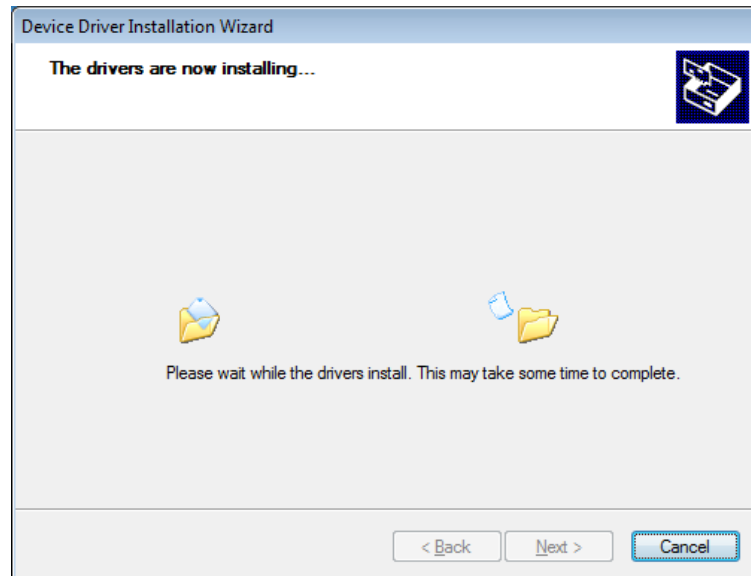
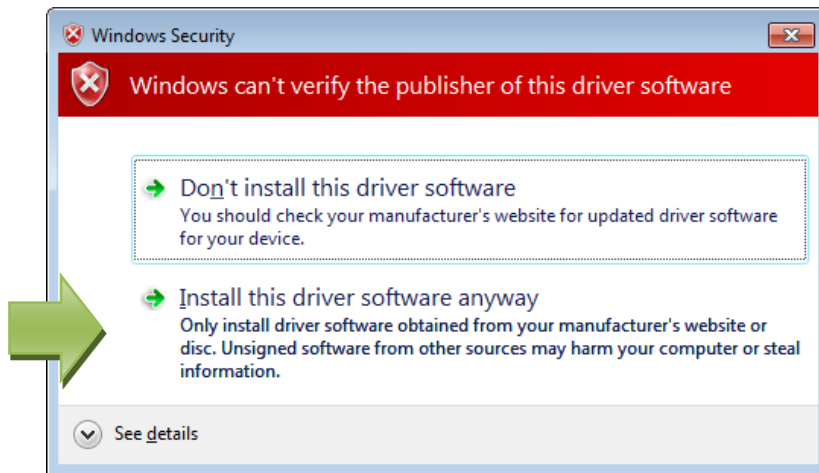


### 4 Installation

Before connecting the display module, run the installer and follow the instructions. The screenshots reproduced below show a typical install sequence. After the driver installer has successfully finished, connect the display module by USB. Make sure to let Windows automatically detect, install and associate the installed drivers to the display module.

Note: Due to operating system and setting differences, screen display content may vary.

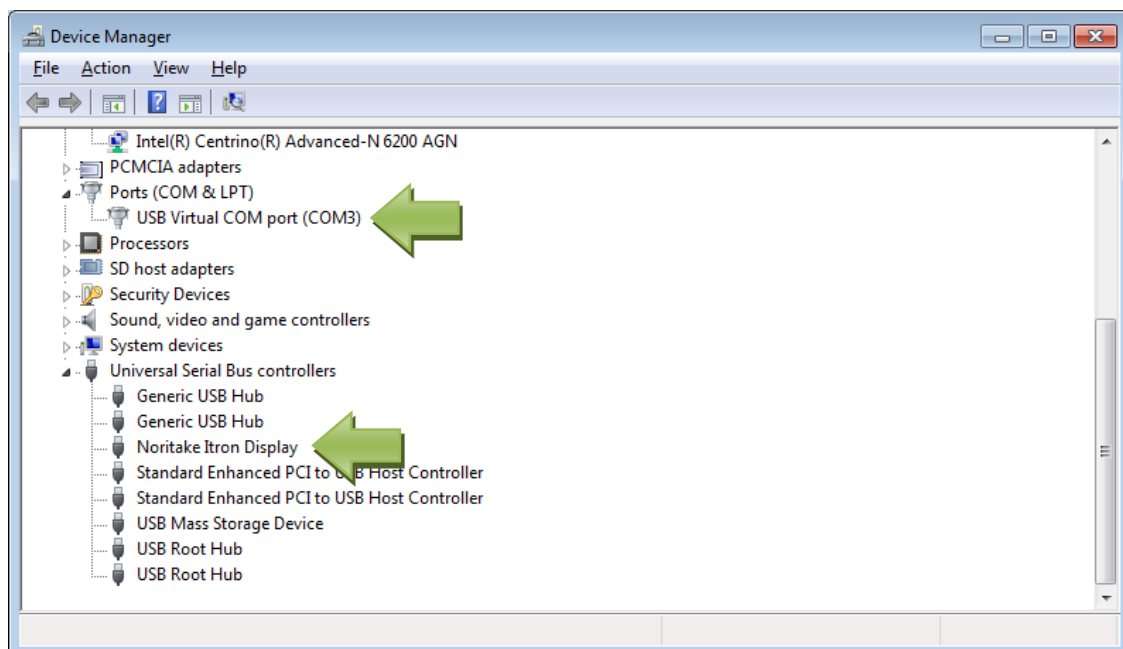








After connecting the display module by USB, follow any prompts to complete the driver installation. Finally, open Device Manager and confirm the entries for the USB device and the COM port device. Note also the display's assigned COM port number.



## 5 Specification

### 5.1 Supported API

Driver support for the Communication API is as follows.

Win32 API	Support	Note
CreateFile	○	(1)
CloseHandle	○	(2)
WriteFile	○	(2)
ReadFile	○	(2)
BuildCommDCB	○	(2)
BuildCommDCBAndTimeouts	○	(2)
ClearCommBreak	○	(2)
ClearCommError	○	(2)
CommConfigDialog	×	
EscapeCommFunction	○	(2)
GetCommConfig	○	(2)
GetCommMask	○	(2)
GetCommModemStatus	○	(2)
GetCommProperties	○	(2)
GetCommState	○	(2)
GetCommTimeouts	○	(2)
GetDefaultCommConfig	○	(2)
PurgeComm	○	(2)
SetCommBreak	○	(2)
SetCommConfig	○	(2)
SetCommMask	○	(2)
SetCommState	○	(2)
SetCommTimeouts	○	(2)
SetDefaultCommConfig	○	(2)
SetupComm	○	(2)
TransmitCommChar	×	
WaitCommEvent	○	(2)

○ ... Supported

△ ... Partially supported

×

... Not supported

Note: Application use of any functions marked △ or × may cause incorrect operation.

(1): Responds OK only if USB device is connected and powered.

(2): Responds OK always.

Communication settings:

- Flow control = None / Hardware
- Data bits = 8.

## 5.2 Control Signal Values

Signal name	Read value
CTS	Always ON
DSR	Always ON
DCD	Always ON
RI	Always OFF

## 5.3 USB Port ⇔ COM Port Mapping

In order to enable more than one module to be used simultaneously on the one computer, the USB device is identified by the USB port that it's connected to. For each COM port, a record of its corresponding USB port is maintained in the registry. In order to use a different USB port than the one used during installation, this mapping must be reset. To use an additional device, the "add\_com\_port.bat" installation procedure must be executed. This is explained in the following section.

Registration of the USB port ⇔ COM port mapping is performed automatically the first time the COM port is opened (If there is no USB port registered for the COM port, an unregistered USB port is selected, and registered as that COM port's USB port).

To clear the registration and start again, delete this registry key:

```
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\services\NoritakeVCOMservice\com_to_
usb_mapping
```

#### 5.4 Reset COM Port Mapping (to change USB port)

Reset COM Port Mapping is required if changing the port that the display is connected to.

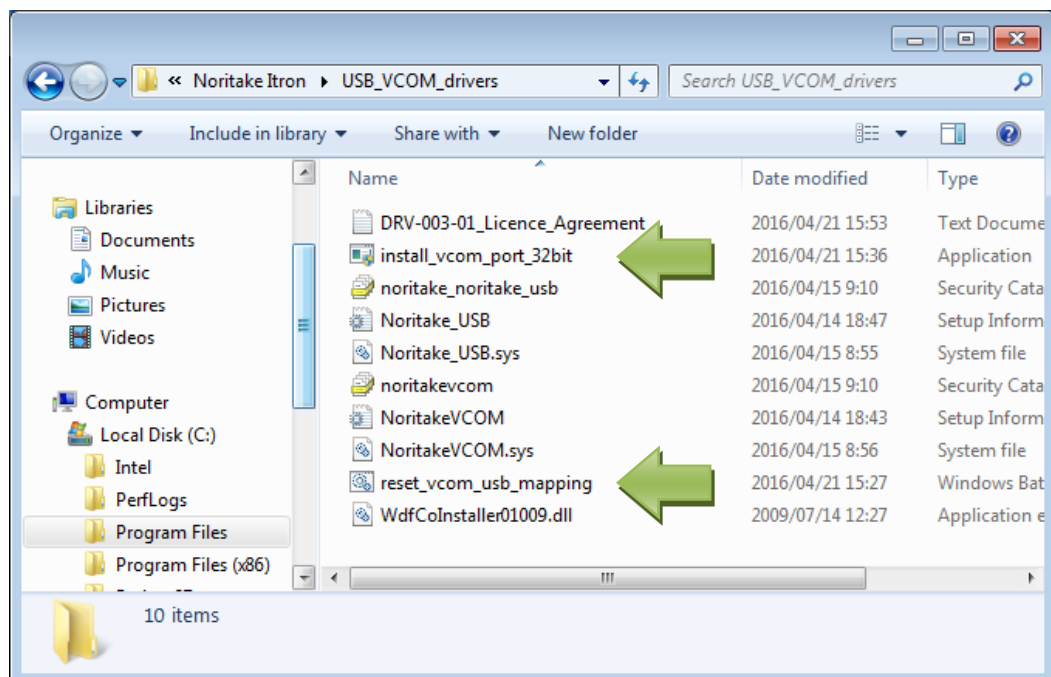
- Software to reset COM Port Mapping is installed in the following directory.
  - C:\Program Files (x86)\Noritake Itron\USB\_VCOM\_drivers : for 64-bit OS
  - C:\Program Files\Noritake Itron\USB\_VCOM\_drivers : for 32-bit OS
- Software to reset Virtual COM Port mapping
  - reset\_vcom\_usb\_mapping.bat

#### 5.5 Add Virtual COM Port (to connect additional display(s))

Add Virtual COM Port is required to connect additional displays to the one computer.

- Software to add additional COM ports is installed in the following directory.
  - C:\Program Files (x86)\Noritake Itron\USB\_VCOM\_drivers : for 64-bit OS
  - C:\Program Files\Noritake Itron\USB\_VCOM\_drivers : for 32-bit OS
- Software to install additional Virtual COM Port
  - install\_vcom\_port\_64bit.exe : for 64-bit OS
  - install\_vcom\_port\_32bit.exe : for 32-bit OS

To add a COM port, run the above program, then open Device Manager to confirm the entry for the new COM port device.



**6 Revision History**

Specification No.	Date	Details
DS-1972-0000-00	March 18, 2016	Initial issue
DS-1972-0000-01	June 13, 2016	Clarification of explanation